

REMARKS

Reconsideration of the present application is respectfully requested. Claim 1 has been amended. The amendment is not made to overcome any claim rejection, as such amendment is believed unnecessary. No claims have been canceled or added in this response. No new matter has been added.

Claim Rejections §103

Independent claims 1 and 19 stand rejected under 35 U.S.C. § 103(a) based on Blumenau et al. (hereinafter "Blum", U.S. Patent no. 6,421,711) in view of Bass et al. (hereinafter "Bass"), U.S. Patent no. 6,671,280). Applicant respectfully traverses the rejections.

The present invention relates to a virtualization storage server implementing the virtualization functionality using separate storage processors connected by a switching fabric and controlled by a microcontroller so that virtualization can be carried out in hardware by establishing paths between the storage processors.

One of the basic requirements of a *prima facie* case of obviousness is that the prior art reference (or references when combined) must teach or suggest all of the claim limitations. MPEP §2143.

Claim 1 recites:

1. A storage server in a storage area network connecting a plurality of host computers and a plurality of storage devices, said **storage server** comprising:
 - a plurality of storage processors, wherein said plurality of storage processors receive a plurality of command packets and a plurality of data packets;
 - a switching circuit connecting said plurality of storage processors;** and
 - a microengine, wherein said microengine is configured to execute processing comprising:
 - configuring a path between a first storage processor and a second storage processor of said plurality of storage processors, via said switching circuit, in accordance with a command packet of said plurality of command packets; and

routing a data packet of said plurality of data packets over said path, prior to completely receiving said data packet, between said first storage processor and said second storage processor via said switching circuit.
(Emphasis added)

By contrast, Blum and Bass, individually or in combination, do not teach or suggest the above emphasized limitation in claim 1. Blum discloses a storage subsystem. As shown in Figure 1 and discussed in column 6, line 64 through column 7, line 9 in Blum, the storage subsystem includes storage volumes (i.e., a plurality of storage disks) and a storage controller. The storage controller has multiple storage adapters and port adapters. These adapters, however, are connected by two back-plane busses, not a switching circuit such as recited in claim 1. Even assuming *arguendo* that the two back-plane busses may be regarded as a circuit, the circuit is not a switching circuit, which by definition is capable of controlling or routing signals in the circuit to transmit data between specific points in a network. The two busses are just passive electrical signal conduits, not a switching circuit.

The Examiner cites Blum's column 2, lines 50-55 and column 10, lines 1-15 and alleges that a switching circuit is disclosed there because "virtual ports are connected to the physical ports by a switch and used for routing requests from the physical port to the virtual port (Office Action mailed on 11/28/05, page 3)." The switch disclosed in Blum, however, connects physical ports to virtual ports, instead of connecting a plurality of storage processors such as recited in claim 1.

Bass does not teach or suggest the above emphasized limitation in claim 1, either. Therefore, at least for the foregoing reasons, the Examiner fails to make a *prima facie* case of obviousness under 35 USC §103(a).

Non-analogous Art

In addition, Blum and Bass are directed to completely different purposes and technology areas. As discussed above, Blum concerns the art of storage systems,

whereas Bass concerns the art of telecommunications. Specifically, Blum is directed to solving the problem of simplifying storage system management in a data network, whereas Bass is directed to solving the problem of integrating Asynchronous Transfer Mode (ATM) and frame-based traffic flows within a telecommunications network (Bass: Abstract). Therefore, one of ordinary skill in the art would not think to try to combine the teachings of Blum and Bass. Furthermore, Bass is non-analogous art, because it is not in Applicant's field of endeavor, nor is it reasonably pertinent to the problem Applicant has addressed with the present invention.

No Motivation or Suggestion

Furthermore, the Examiner fails to make a *prima facie* case of obviousness because there is no motivation or suggestion to combine the teachings of Blum and Bass.

The MPEP clearly states in §2143.01 that the prior art must suggest the desirability of the claimed invention, and the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. The Examiner fails to show the desirability. The Examiner alleges that "one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Bass's routing data packet prior to completely receiving data packet between first and second processors in Blum's network in order to minimize upside memory and overhead processing (Office Action mailed on 11/28/05, page 3)." Applicant has studied Blum, but does not find any disclosure or suggestion of memory or overhead processing issues associated with transferring data between a port adapter and a storage adapter via two back-plane busses (Figure 1 and column 7, line 15). Applicant respectfully request that the Examiner specifically point out the sections that disclose or suggest the above issues, or withdraw the rejection.

Therefore, at least for the above reasons, the Examiner fails to make a prima facie case of obviousness under 35 USC §103(a). Claim 1 and all claims which depend on it are patentable over Blum and Bass.

Similarly, independent claim 19 essentially includes similar limitations. Thus, at least for the same reasons discussed above, claim 19 and all claims which depend on it are also patentable over Blum and Bass.

Dependent Claims


In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,
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